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| 10/020,461      | 12/14/2001  | Hichem M'Saad        | A6123/T43700        | 9343             |

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TOWNSEND AND TOWNSEND AND CREW LLP / AMAT  
TWO EMBARCADERO CENTER  
EIGHTH FLOOR  
SAN FRANCISCO, CA 94111-3834

EXAMINER

HOFFMANN, JOHN M

ART UNIT

PAPER NUMBER

1731

DATE MAILED: 01/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/020,461

Applicant(s)

M'SAAD ET AL.

Examiner

John Hoffmann

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-13, 15, 16 and 21-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-13, 15, 16 and 21-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

Claims 1-2, 15-16, and 22-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bazylenko 6154582 and Kyoto 5221309 and optionally in view of Dragone 5136671.

See how the references were previously applied. The only difference is that Kyoto is now explicitly required in the rejection.

Claims 1, 2-4, 6-13, 21-26, and 29-42 rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson 6614977 and Kyoto 5221309 and optionally in view of Dragone 5136671.

See how the references are previously applied. The only difference is that Kyoto is now explicitly required in the rejection.

### ***Response to Arguments***

Applicant's arguments filed 7 November 2005 have been fully considered but they are not persuasive.

It is argued that Dragonne says nothing about the cores within the waveguides. First of all, to one of ordinary skill, the Dragonne waveguides are the same thing as

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cores. Applicant has not defined "core" in any manner which would exclude Dragonne's waveguides. The prior art need not use the same terminology as applicant uses.

It is further argued that the rejection does not have any direction as to how one of skill would combine the references. The invention of claim 1 is mere duplication of parts. Since Bazylenko teaches how to make one core, it is reasonably presumed that one of ordinary skill could make two cores. Applicant has not provided any evidence or rationale which would suggest that one of ordinary skill could not routinely create two cores with the Bazylenko method.

The arguments regarding Kyoto are not understood. As pointed out in the rejection, Kyoto teaches a large difference allows for easy propagation of light. Since applicant does not disagree with the Office's determination that this would be sufficient motivation to use as large a refractive index as desired, it is deemed that applicant agrees with such.

It is further argued that Kyoto's flame hydrolysis methodologies are not directly applicable to PECVD methodologies. The relevance of this is not understood, since the rejection does not suggest such a combination. Rather Kyoto is cited in the rejection as evidence that it is not invention to provide an index greater than 2%. Examiner could have just as easily taken Official Notice of that well-known fact that the larger the difference, the better the waveguiding. It is only the difference that is important, not the mode of creating the difference. If applicant is saying that one of ordinary skill would not be enabled to make the 2% difference with PECVD: applicant should clearly state such and explain why – preferably with evidence. However, it is noted that such an

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argument might be used to reject the present claims under 35 USC 112 – as being incomplete and/or unenable. Examiner's position is that the 2% difference by PECVD was easily obtained by one of ordinary skill at the time of the invention – and thus the present invention/claims are fully enabled and complete. Nevertheless, all evidence/arguments to the contrary will be considered.

It still further argued that since Bazylenko does not teach the same PECVD parameters that are claimed in the dependent claims, that one would not optimize those parameters. This is a conclusion with no explanation to support such. By applicant's arguments, it would never be obvious to change any parameter beyond what is explicitly taught. However it is well settled case law that one can optimize to values which are not disclosed:

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**From MPEP 2144.05 [R-1] Obviousness of Ranges:**

See MPEP § 2131.03 for case law pertaining to rejections based on the anticipation of ranges under 35 U.S.C. 102 and 35 U.S.C. 102/103.

**II. OPTIMIZATION OF RANGES**

**A. Optimization Within Prior Art Conditions or Through Routine Experimentation**

Generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955) (Claimed process which was performed at a temperature between 40°C and 80°C and an acid concentration between 25% and 70% was held to be prima facie obvious over a reference process which differed from the claims only in that the reference process was performed at a temperature of 100°C and an acid concentration of 10%.); >see also Peterson, 315 F.3d at 1330, 65 USPQ2d at 1382 ("The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages."); < \*\* In re Hoeschele, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969) (Claimed elastomeric polyurethanes which fell within the broad scope of the references were held to be unpatentable thereover because, among other reasons, there was no evidence of the criticality of the claimed ranges of molecular weight or molar proportions.). For more recent cases applying this principle, see Merck & Co. Inc. v. Biocraft Laboratories Inc., 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989); In re Kulling, 897 F.2d 1147, 14 USPQ2d 1056 (Fed. Cir. 1990); and In re Geisler, 116 F.3d 1465, 43 USPQ2d 1362 (Fed. Cir. 1997).

As to the argument that Bazyenko teaches away from using nitrogen source gases. This is an assertion; Applicant fails to specifically point out where Bazyenko teaches away. As indicated in the rejection, col. 2, lines 7-10 of Bazyenko clearly teaches advantages of using nitrous oxides. But even if Bazyenko has a teaching of some disadvantages of using NO, the invention still would have been obvious. As indicated in MPEP 2145:

A prior art reference that "teaches away" from the claimed invention is a significant factor to be considered in determining obviousness; however, "the nature of the teaching is highly relevant and must be weighed in substance. A known or obvious composition does not become patentable simply because it has been described as somewhat inferior to some other product for the same use." In re Gurley, 27 F.3d 551, 554, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994) (Claims were directed to an epoxy resin based printed circuit material. A prior art reference disclosed a polyester-imide resin based printed circuit

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material, and taught that although epoxy resin based materials have acceptable stability and some degree of flexibility, they are inferior to polyester-imide resin based materials. The court held the claims would have been obvious over the prior art because the reference taught epoxy resin based material was useful for applicant's purpose, applicant did not distinguish the claimed epoxy from the prior art epoxy, and applicant asserted no discovery beyond what was known to the art.)

Thus even if Bazyenko discloses NO is somewhat inferior, it still would have been obvious.

As to the arguments against the rejection which uses Johnson as the primary reference rather than Bazyenko: the arguments are substantially identical to the arguments against the Bazyenko-based combination. Those Johnson- arguments are not persuasive for substantially the same reasons that they were not persuasive against the Bazyenko combination.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

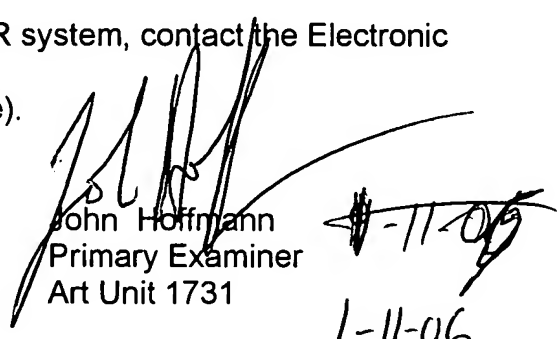
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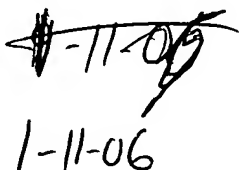
shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272 1191. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
John Hoffmann  
Primary Examiner  
Art Unit 1731

  
1-11-06

jmh